

## REMARKS/ARGUMENTS

### Claim Rejections

Applicants thank the Examiner for the non-final office action, and notes that the Examiner has provided new ground(s) of rejection by citing new art Menzies (US 6,317,748).

The Examiner has rejected claims 1-6, 8-16, 16-26, 28-33 under 35 U.S.C. 103(a) as being unpatentable over Delphi 4 Unleashed Chapter 3 (referred to as “Polymorphism” by the Examiner) in view of US 6,317,748 (referred to as “Menzies” by the Examiner). Applicants traverse the rejection of pending claims 1-6, 8-16, 18-26, 28-33.

### Independent claims 1, 11, 21, 31

Independent claims 1, 11, 21, 31 require managing devices by:

- receiving, by a proxy, a request implemented via at least one device independent class;
- traversing, by the proxy, a class hierarchy database to determine at least one device specific class that corresponds to the at least one device independent class, wherein the class hierarchy database stores a class hierarchy and associations between classes;
- modifying, by the proxy, the received request, wherein in the modified request the least one device independent class has been translated to the at least one device specific class;
- generating a device specific request in a device specific language; and
- sending the device specific request in the device specific language to a managed device coupled to the proxy, wherein the proxy is a computational device.

The Examiner has rejected independent claims 1, 11, 21, 31 under 35 U.S.C. 103(a) as being unpatentable over Polymorphism in view of Menzies. Applicants traverse the rejection of the claims.

In rejecting claims 1, 11, 21, 32 the Examiner has mentioned on page 4 of the Office Action that col. 6, lines 30-40 of the cited Menzies discloses the claim requirement of generating a device specific request in a device specific language, and sending the device specific request in the device specific language to a managed device coupled to the proxy. Applicants respectfully submit that col. 6 lines 30-40 of the cited Menzies discusses that in order to service a request, a server (CIMOM) accesses a CIM repository in order to determine which object provider or providers to contact (if any). The cited Menzies further discusses that if the CIM repository does

not have the information it may provide the information necessary for locating the appropriate service provider that can satisfy the request. In the disclosure of the cited Menzies, the server will either directly satisfy a request or become a client itself and forward the request to an appropriate provider.

Thus, the cited Menzies discusses forwarding service requests to appropriate providers. Applicants respectfully submit that col. 6, lines 30-40 of the cited Menzies does not teach, disclose, or suggest the claim requirements of generating a device specific request in a device specific language, and sending the device specific request in the device specific language to a managed device coupled to the proxy. In particular, there is no discussion in col. 6, lines 30-40 of the cited Menzies of a device specific language as required by the claims. The cited col. 6, lines 30-40 in fact appears to discuss that the server will either directly satisfy a request or become a client itself and forward the request to an appropriate provider. The claims have different requirements in that the claims require generating a device specific request in a device specific language, and sending the device specific request in the device specific language to a managed device coupled to the proxy.

For the above reasons claims 1, 11, 21, 31 are patentable over the cited art.

Certain additional arguments provided earlier by the Applicants are given below.

Applicants submit that nowhere does the cited Polymorphism (page 4, lines 21-25; page 5, lines 5-9) teach or suggest the claims requirements of traversing a class hierarchy database to determine at least one device specific class that corresponds to the at least one device independent class.

The Examiner has mentioned that page 4, lines 21-23 of the cited Polymorphism discloses the claim requirement of traversing a class hierarchy database to determine at least one device specific class that corresponds to the at least one device independent class. Applicants respectfully submit that the cited Polymorphism discusses how a method on an object can be allowed to act in many different ways. For example, one object, called shape may “morph” from one functionality to another, depending on the context of the call. Polymorphism discusses a series of objects which descend from one base class and respond to the same virtual command to produce different outcomes. However, nowhere does the cited Polymorphism teach or suggest the claim requirements of:

- (i) at least one device independent class
- (ii) at least one device specific class that corresponds to the at least one device independent class.

In the cited Polymorphism (Page 3; section entitled “A Simple Example of Polymorphism”), the four objects TRectangle, TEllipse, TCircle and Tsquare objects are each a descendant of a base class called TShape. However, the cited Polymorphism does not teach or suggest the claim requirements of at least one device independent class and at least one device specific class that corresponds to the at least one device independent class. The four objects TRectangle, TEllipse, TCircle and Tsquare objects are each a descendant of a base class called TShape and there is no teaching or suggestion in the cited Polymorphism of at least one device independent class and at least one device specific class that corresponds to the at least one device independent class.

Additionally, nowhere is there any teaching or suggestion in the cited Polymorphism of traversing a class hierarchy database. While the cited Polymorphism may discuss that a method of an object can act in many different ways there is no teaching or suggestion of the claim requirements of traversing a class hierarchy database.

In fact the cited Polymorphism teaches away from the claim requirements of at least one device independent class and at least one device specific class that corresponds to the at least one device independent class because the cited Polymorphism discusses on page 5, lines 11-12: “...you can use an object of a single type yet have it behave in many different ways”. Therefore, the cited Polymorphism is related to the usage of an object of a single type in many different ways, whereas the claims require at least one device independent class and at least one device specific class that corresponds to the at least one device independent class, wherein the class hierarchy is traversed to determine the at least one device specific class.

For the above reasons claims 1, 11, 21, 31 are patentable over the cited art.

#### Dependent claims 2-6, 8-10, 12-16, 18-20, 22-26, 28-30, 32-33

Additionally, claims 2-6, 8-10, 12-16, 18-20, 22-26, 28-30, 32-33 depend directly or indirectly on the pending independent claims 1, 11, 21, 31. Applicants submit that these claims are patentable over the cited art because they depend from claims 1, 11, 21 and 31 which are patentable over the cited art for the reason discussed above, and because the combination of the limitations in the dependent claims and the base and intervening claims from which claims 2-6,

8-10, 12-16, 18-20, 22-26, 28-30, 32-33 depend provide further grounds of distinction over the cited art.

Dependent claims 2, 12, 22, 32

Dependent claims 2, 12, 22, 32 depend on claims 1, 11, 21, 31 respectively and further require:

mapping at least one device independent class attribute to at least one device specific class attribute in the modified request;

mapping at least one device independent property to at least one device specific property in the modified request;

generating the device specific request from the modified request, in response to mapping the at least one device independent class attribute and the at least one device independent property; and

sending the device specific request to the managed device, wherein the proxy couples a plurality of hosts to a plurality of managed devices that includes the managed device.

Applicants respectfully point out to the Examiner that in rejecting the claims the Examiner has failed to indicate where the cited art teaches, discloses, or suggest the claim requirements that the proxy couples a plurality of hosts to a plurality of managed devices that includes the managed device.

For the above reasons claims 2, 12, 22, 32 are patentable over the cited art.

Dependent claims 3, 13, 23

Dependent claims 3, 13, 23 depend on claims 1, 11, 21 respectively and require:

further modifying the received request to include at least one association between device specific classes in the class hierarchy.

Col. 7, lines 50-60 of the cited Menzies used for rejecting the claims discusses a virtualized database for presenting a device and the treatment of CIM objects as objects within the schema. Nowhere does the cited Menzies teach, disclose, or suggest the claim requirements of further modifying the received request to include at least one association between device specific classes in the class hierarchy.

For the above reasons claims 3, 13, 23 are patentable over the cited art.

Dependent claims 4, 14, 24, 33

Dependent claims 4, 14, 24, 33 depend on claims 1, 11, 21, 31 respectively, wherein the received request indicates a source class and a requested class, and further require:

determining a specific association between a first device specific class that corresponds to the source class and a second device specific class that corresponds to the specific class, wherein the specific association corresponds to a managed device.

The claims require that the received request indicate a source class and a requested class and nowhere does the cited Polymorphism or the cited Menzies teach or suggest these claim requirements.

The Examiner has mentioned that page 6 of the cited Polymorphism discusses the claim requirements that the received request indicates a source class and a requested class. Applicants respectfully submit that that the cited Polymorphism discusses a series of objects which descend from one base class, but does not teach, disclose, or suggest the claim requirement of a source class and a requested class. The Examiner mentions a “parent class” and that child requests are “made to functions of the parent class.” The Examiner is requested to indicate which element of the cited Polymorphism is the source class and which element is the requested class.

For the above reasons claims 4, 14, 24, 33 are patentable over the cited art.

Dependent claims 5, 15, 25

Claims 5, 15, 25 depend on claims 4, 14, 24 respectively, wherein the source class represents storage pools and the requested class represents storage volumes corresponding to a storage pool.

Applicants respectfully submit that col. 8, lines 15-30 of the cited Menzies does not teach disclose, or suggest storage pools and storage volumes as required by the claims. Instead, the cited Menzies discusses classes, superclasses, inheritances, base class, derived class, etc.

For the above reasons claims 5, 15, 25 are patentable over the cited art.

Dependent claims 6, 16, 26

Claims 6, 16, 26 depend on claims 1, 11, 21, wherein the received request indicates a source class and a base association and further requires:

determining a first device specific class from the class hierarchy database, wherein the first device specific class has a specific association with a second device specific class that corresponds to the indicated source class, and wherein the specific association corresponds to the base association.

Nowhere does the col. 8. lines 15-30 of the cited Menzies teach or suggest the claim requirements of a base association wherein the specific association corresponds to the base association. Instead, the cited Menzies discusses classes, superclasses, inheritances, base class, derived class etc.

For the above reasons claims 6, 16, 26 are patentable over the cited art.

#### Conclusion

For all the above reasons, Applicant submits that the pending claims are patentable over the art of record. Should any additional fees beyond those indicated be required, please charge Deposit Account No. 09-0466.

The attorney of record invites the Examiner to contact him at (310) 557-2292 if the Examiner believes such contact would advance the prosecution of the case.

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